PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the modification of the existing traffic control signal at the intersection of MD 924 and Ring Factory Road in Harford County, Maryland. MD 924 is considered to run in an north/south direction.

II. INTERSECTION OPERATION

The intersection presently operates in NEMA four (4) phase, full-traffic-actuated mode. The MD 924 movements operate concurrently. The Ring Factory Road movements operate concurrently with an actuated pedestrian phase across the south leg of the intersection.

The intersection phasing is to be modified to a NEMA five (5) phase, full traffic-actuated mode. There wil be an exclusive/permissive left turn phase for the northbound movement of MD 924. The MD 924 through movements will operate concurrently. The Ring Factory Road movementnts will operate concurrently with an actuated pedestrian phase across the south leg of the intersection.

The existing cabinet/controller will be utilized. Existing 2-channel amplifers are to be replaced with new 4-channel rack mounted time delay output loop detector amplifers.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in/8 in. one-way five section (12 in. YA,GA, 8 in. R,Y,G) adjustable signal head with span wire mounting hardware and tunnel visors.
1	EA	816	Rack mounted loop detector cabinet retrofit.
2	EA	816	4-channel rack mounted loop detector amplifers.
★ 1	EA	816	Rack mounted loop detector amplifer power supply.
★ 1	EA	813	36 in. x 42 in. R 10-12 sign with span wire mounting hardware.
★ 1	EA	813	30 in. x 36 in. R 3-5(R) sign with span wire mounting hardware.
1	EA	813	30 in. x 36 in. R 3-6(L) sign with span wire mounting hardware.

★ To be installed by MD-SHA

B. Equipment to be furnished and installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	EA	811	Handhole.
405	LF	815	Sawcut for signal loop detector.
1580	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
210	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
40	LF	805	1 in. liquid tight flexible non-metalic conduit for loop detector sleeve.
120	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
55	LF	556	24 in. wide HAPPTPM - white for stop line.
175	LF	556	12 in. wide HAPPTPM - white for cross walk.
Lump Sum	LS	---	Remove and salvage of existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A [on CADD].

CONTACT LIST

The contact persons for District #4 are as follows:

Mr. Dave Malkowski
District Engineer
410-321-2810

Mr. Randall Scott
Assistant District Engineer - Traffic
410-321-2781

Mr. Graydon Tobery
Assistant District Engineer - Utility
410-321-3460

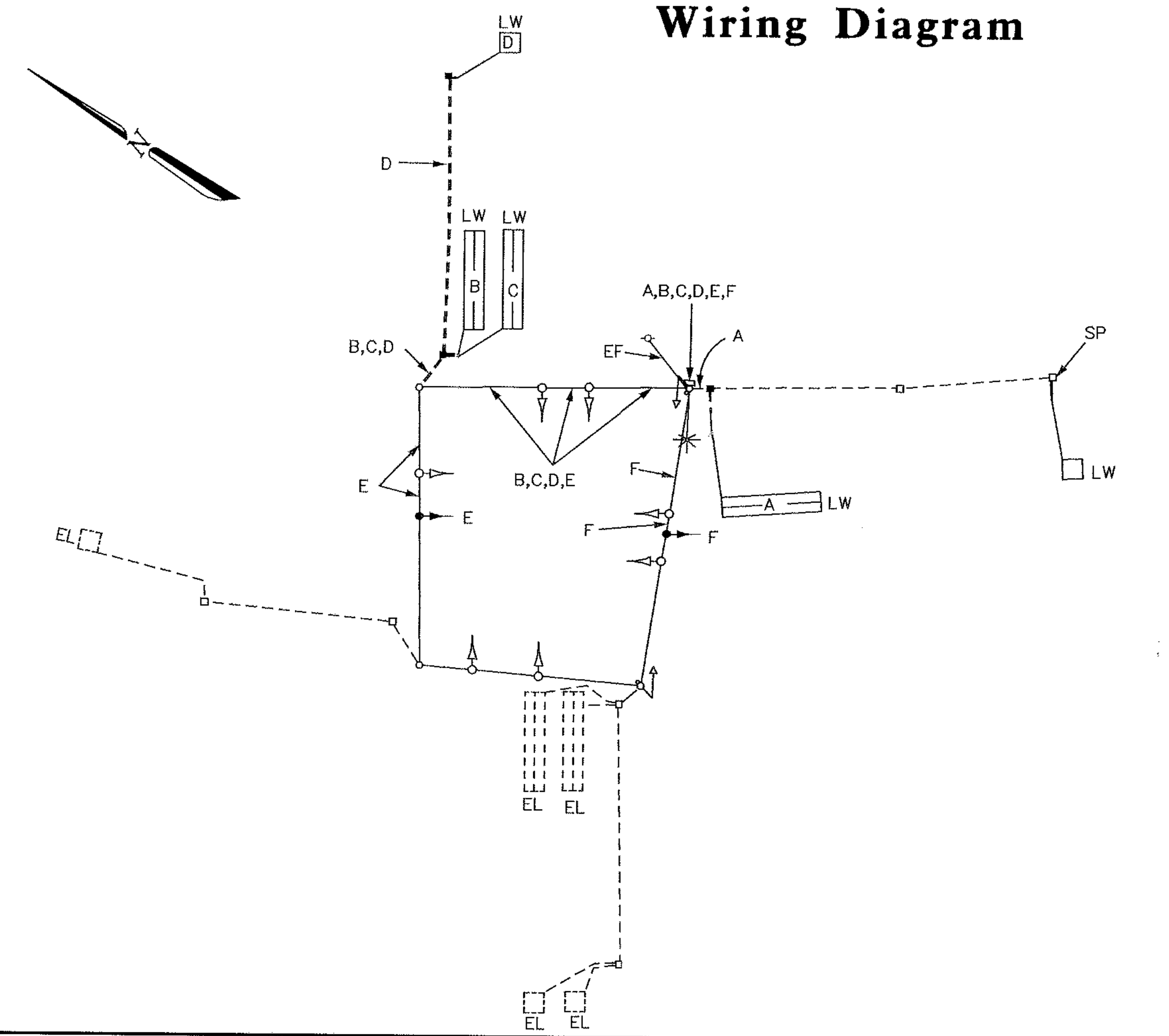
Mr. Dave Ramsey
Assistant District Engineer - Maintenance
410-321-2761

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

Phase Chart

	1	2	3	4	5	6	7	8	9	10,11
Phase 2 & 5	R	R	G ←G	G ←G	G	R	R	R	R	DW
5 Change	R	R	G ←Y	G ←Y	G	R	R	R	R	DW
Phase 2 & 6	G	G	G	G	G	R	R	R	R	DW
2 & 6 Change	Y	Y	Y	Y	Y	R	R	R	R	DW
Phase 4 & 8	R	R	R	R	R	G	G	G	G	DW
4 & 8 Change	R	R	R	R	R	Y	Y	Y	Y	DW
Phase Alt 4	R	R	R	R	R	G	G	G	G	WK
Ped Clearance	R	R	R	R	R	G	G	G	G	FL/DW
Alt 4 Change	R	R	R	R	R	Y	Y	Y	Y	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK

Wiring Diagram



A, B, C, D — 2-Conductor Cable (Aluminum Shielded)

E, F — 7-Conductor Electrical Cable (No. 14 A.W.G.)

EL — Existing Loop Detector Wire

LW — Loop Detector Wire (No. 14 A.W.G.) in Flexible Tubing

SP — Splice Loop Wire To Existing Aluminum Shielded Cable

EF — Existing Overhead Electrical Service By BGE

The Traffic Group

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Job. No. 980201
SIGPLAN2.DGN

MDOT – STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information)

MD 924 at Ring Factory Road

DATE: July 2, 1999			LOG MILE *		
DRAWN BY: F. Hoeckel	F.A.P. NO.	N/A	PLAN SHEET NO.: 1868D-GI	SHEET NO. 4 of 4	
CHK. BY:	S.H.A. NO.	996M82			
SCALE: N/A	COUNTY:	Harford			

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